PACOM GREEN INITIATIVE FOR FUELS TRANSITION (GIFTPAC)



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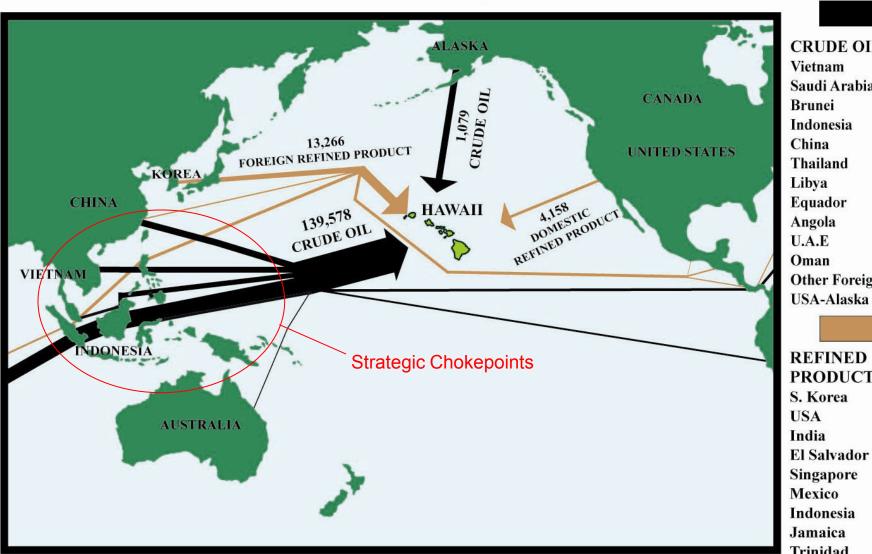
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Hawaii's Petroleum Supply Lines



CRUDE OIL Vietnam 22.9% Saudi Arabia 19.9% 10.7% Brunei 10.0% Indonesia 9.8% China Thailand 5.2% 3.9% Libya Equador 3.4% Angola 2.3% U.A.E 2.2% 2.0% Oman Other Foreign 7.4%

0.8%

REFINED PRODUCT

RODUCI	
S. Korea	26.8%
USA	23.9%
India	14.3%
El Salvador	11.1%
Singapore	7.8%
Mexico	3.8%
Indonesia	3.4%
Jamaica	3.3%
Trinidad	2.9%

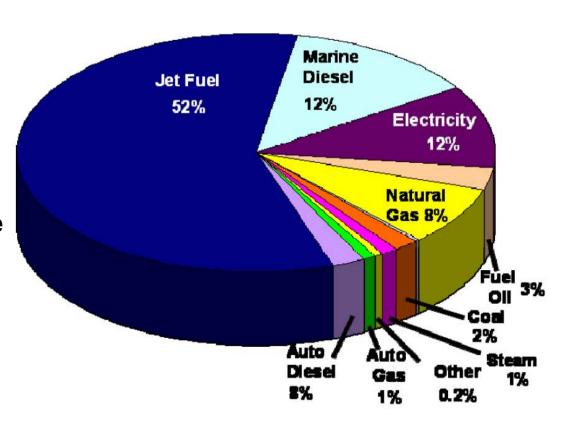
Other Foreign 2.8%

Sources: State of Hawaii Strategic Industries Division; and U.S. Energy Information Agency - 2007 (P): Preliminary-May 2007 Units are in barrels unless otherwise noted



DoD Consumption is Primarily Jet Fuel

- Comprises the majority of DoD energy use worldwide
- Makes up a large share of total energy use in PACOM's home, Hawaii
 - 5x more jet fuel use per capita than national average
- No easy replacements
 - Cannot use lower-density biofuels (ethanol, biodiesel)



Percent of FY06 Total DoD Energy Use



Initial Steps: PACOM-led Interagency Planning Group

Government-Only Working Group:

– Mission Manager: **PACOM**

– Federal Representation: DOD: OSD PSTF, DARPA, DESC, AFRL,

AFPET, AFCO, NAVAIR, NAVFAC HAWAII, ONR, PACOM J4/JPO

USDA: RDP, ARS, NRCS

USDOE: OBP

DESC Acquisition Manager:

– Service Sponsors: **USAF Energy Office, USN**

Energy Office

Hawaii DBEDT, Dept of Ag – Regulatory Sponsors:

Listening to Industry Contributors:

 Land owners Cellulosic converters

 Farmers Equipment suppliers

 Seed/crop developers Capital sources

 Engineers Ag processors

 Refiners Utilities

 Ranchers Comm Av Alt Fuels (CAAFI)



Plan to Reduce Risk in the Enterprise Model

Steps in the Enterprise Model



Participants to include

...Landowners... Regulatory AgenciesRefiners...Distributors...

Technologists...Farmers... Ag Processors... Trade Groups... DESC...Services...

Resources to bring to enterprise to reduce process risk

USDA State of Hawaii Private Sector DOE DOD



Desired Outcome Set by Group

- 1) Long-term contract by DESC for multi-year stable-price supply of locally-produced green MILSPEC fuel to displace at least 25% of DoD petroleum-based supply; corresponding purchase contracts of renewable/green electricity derived from co-products of jet fuel process.
- 2) Enterprise model inclusive of the local energy market that incorporates the agricultural, energy, environmental, government, industrial, and commercial sustainability objectives.
- 3) End state with <u>sustainable ongoing competition</u> between multiple commercial entities in Hawaii at multiple levels.



- 1) Increase in contract duration beyond 5 years
- 2) Stable pricing techniques to ease budget planning
- 3) Collaboration and relationships within industry

This briefing was given by:

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